

Validation - phase I

- verification of initial ---
- screening results
- establish cellular -----
- localization & anatomic
- distribution



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50-200
series basic
arrays

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FIG. 2A

	1	2	3	4	5	6	7	8
a	O	O	O	O	O	O	O	O
b	O	O	O	O	O	O	O	O
c	O	O	O	O	O	O	O	O
d	O	O	O	O	O	O	O	O
e	O	O	O	O	O	O	O	O
f	O	O	O	O	O	O	O	O
								A
a	O	O	O	O	O	O	O	O
b	O	O	O	O	O	O	O	O
c	O	O	O	O	O	O	O	O

FIG. 2B



Six tissue elements from a PathWork™ Breast Array BR50 stained with CK7 showing selective staining (400X). Tissue elements are 0.6mm in diameter and spaced 0.3mm apart.

FIG. 2C

Sample Data Sheet Information (for one tissue element, located at A1a) provided with every pathWorks™ Tissue MicroArray

Cat. #	BR50	Mitoses:	1
Lot #	07	PT:	1
Coordinates:	A1a	pN:	0
Organ:	Breast	LN pos	0
Category:	Breast cancer, ductal	LN all	23
Sex:	F	Tumor dia.	15
Age:	67	Surgery:	mastectomy
BRE Grade:	G2		
Tubuli:	3		
Polymorphy:	3		

FIG. 2D

FIG. 2E

Tissue MicroArrays



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- Development of population databases
- High-throughput *in situ* analysis of DNA, RNA and protein
- Discovery of diagnostic and prognostic correlations
- Target prioritization



The Clinomics Biorepository



Specimen Entry Form

Pathology #	LookUp	Pathology #	H-983-90																																																																												
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Record: 1 of 111 * of 471

Form View

Start [] » [] Amer. [] CD Pa. [] HP GS. [] Chro... [] 418 PM



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FIG. 4A

Biorepository Database

PROBLEMS & CHALLENGES

	coordinates	oncany	histology	HRE grade	tumor diameter	pT	pN	nodes examined	nodes pos	censor	months	survival age	homotherapy	chemotherapy	prophylaxis
1		90	3	1	40	28	0	0	0	yes	38	33	no	no	no
digital		60	3	2	10	6	0	0	0	no	29	54	yes	no	no
manou		20	1	0	8	0	0	0	0	no	96	55	no	no	no
digital		30	4	1	9	2	0	0	0	no	64	70	yes	no	no
digital		30	4	1	14	8	0	0	0	no	48	44	no	yes	no
digital		10	1	1	11	2	0	0	0	no	12	31	no	no	no
digital		22	2	1	16	3	0	0	0	no	107	64	yes	no	no
digital		30	2	3	4	4	0	0	0	no	21	48	no	no	no
digital		3	3	2	0	0	0	0	0	no	28	49	no	no	no
digital		40	2	1	13	5	0	0	0	no	55	60	no	no	no
digital		40	2	2	12	9	0	0	0	no	73	44	no	no	no
digital		30	4	2	10	7	0	0	0	no	85	70	no	no	no
digital		30	4	0	14	0	0	0	0	no	80	79	no	no	no
		3													

Medication and treatment histories, with outcomes, and expression profiles

FIG. 4B

CLINOMICS

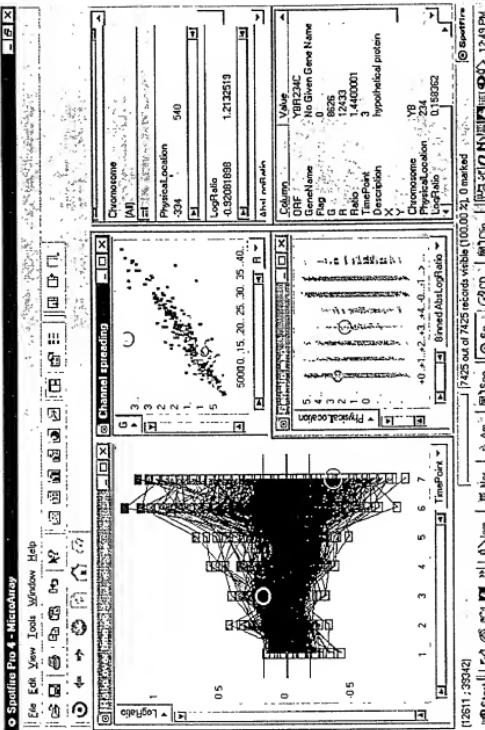
617

Biorepository Database

Sorting and selection of patient populations

Clustering analysis

Development of expression profiles vs. medical data



Clustering analysis

FIG. 4C

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